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Impact of Cartelisation of Artisanship on Economic Activities in Edo State, Nigeria

Alade Sule OMOYE
Department of Accounting
Faculty of Management Sciences, University of Benin, Nigeria
alade.omoye@uniben.edu

Uduak Deborah WILSON-OSHILIM
Department of Accounting
Faculty of Management Sciences. University of Benin, Nigeria
uduako.wilson-oshilim@uniben.edu

Edosa Joshua ARONMWAN
Department of Accounting
Faculty of Management Sciences, University of Benin, Nigeria
edosa.aronmwan@uniben.edu

Abstract

The study examined the impact of Cartelisation of Artisanship on Economic Activities in Edo State"*, directly focusing on Benin City, Uromi, and Auchi which represent each of the three senatorial districts in Edo State. This survey specifically evaluated five dimensions of cartel influence: product price control, cartel cohesion, members' welfare, accessibility to regulatory authorities, and government funding of artisans. The survey adopted a survey research design focusing on quantitative approach, and a structured questionnaire was employed as the research instrument. However, due to the infinite target population size, the study applied the Cochran formula for minimum sample size determination which resulted in a final sample size of 600. The quantitative data collected was analysed using descriptive statistics and ordered logistics regression analysis. The findings from the study show that price control, members' welfare, and government funding exert positive and statistically significant effects on economic commercial activity, whereas cartel cohesion and accessibility exert negative and significant effects. In addition, government funding emerged as the strongest positive predictor, indicating that public support may be more effective than internal cartel organization in promoting economic activity in Edo State. The study concludes that artisan cartels are not merely informal associations; they are economic institutions whose design and behaviour can either stimulate or constrain local development. The study recommends amongst others that the government should prioritize*

targeted artisan funding schemes through transparent grants, soft loans, tool subsidies, and skills-development packages to boost economic activities.

Keywords: Cartelisation, artisan, artisanship, economic activities.

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INTRODUCTION

Artisans, including carpenters, vulcanisers, tailors, plumbers, and bronze casters, have long played a vital role in Edo State's informal economy through their contributions to employment generation, skill development, and the preservation of indigenous craftsmanship and traditional knowledge systems (Ajakaiye & Olomola, 2020). Organized through trade unions and apprenticeship structures, these artisans facilitate professional training, self-regulation, and quality control within their respective trades. However, growing levels of organization within the sector have raised concerns regarding the emergence of cartel-like practices that may influence market dynamics and economic outcomes within the state. While artisan associations often provide members with collective bargaining power, welfare support, and professional standards, they may also evolve into exclusionary coalitions that exercise disproportionate market control. Such cartelisation can result in price-fixing, restricted market access, monopolistic tendencies, and barriers to entry for non-members and aspiring entrepreneurs (Olusoji & Odeleye, 2018; Lamiya & Siddharth, 2024). These practices may reduce competition, increase the prices of goods and services, limit innovation, and constrain economic opportunities. Conversely, cartelisation can also promote professionalism, improve service quality, and encourage adherence to ethical practices, thereby contributing positively to economic activities when properly regulated (Kang, 2025).

The implications of artisan cartelisation are particularly significant within the context of Nigeria's development agenda. The National Development Plan (2021-2025) and the Economic Sustainability Plan emphasize inclusive participation in non-oil sectors, job creation, poverty reduction, and broad-based economic growth (Federal Government of Nigeria, 2021; International Monetary Fund, 2021; National Bureau of Statistics, 2022). Likewise, the United Nations Sustainable Development Goals, particularly SDG 8 (Decent Work and Economic Growth) and SDG 10 (Reduced Inequalities), advocate equitable economic systems that promote fair participation and shared prosperity (United Nations, 2022). Understanding the influence of cartelisation within artisan communities is therefore essential for aligning local economic activities with national and global development priorities (Iwuoha & Aniche, 2022).

Despite the socio-economic importance of the artisan sector, empirical evidence on the effects of cartelisation remains limited. Existing studies suggest that while cartels may enhance members' welfare and bargaining strength, practices such as preferential access to resources, market restrictions, and unequal relationships with regulatory authorities can undermine competition and marginalize non-members, particularly young and emerging entrepreneurs (Adams, 2024). Given that Nigeria's informal sector employs more than two-thirds of the workforce, distortions within this sector have significant implications for economic development, inclusive growth, and sustainable livelihoods (Ajakaiye & Olomola, 2020; National Bureau of Statistics, 2020). Consequently, this study seeks to provide empirical evidence on the impact of artisan cartelisation in Edo State and offer policy insights for promoting fair competition, inclusive participation, and sustainable economic development.

Objectives of the Study

Specifically, the study seeks to*:*

1. determine the extent of cartel artisan's product price control on economic activities in Edo state;
2. ascertain the influence of cartel artisans' cohesion on economic activities in Edo state;
3. investigate the effect of cartel artisans' members welfare on economic activities in Edo state;
4. examine the effect of cartel artisans' accessibility to regulatory authorities on economic activities in Edo state; and,
5. assess the influence of government funding of artisans on economic activities in Edo state.

LITERATURE REVIEW

Conceptual Review

Economic Activities

Economic activities encompass all human efforts involved in the production, distribution, and consumption of goods and services to satisfy societal needs and wants through the effective utilization of available resources (Adiga et al., 2025). These activities constitute the foundation of economic systems and play a critical role in determining how scarce resources are allocated to meet competing demands (Ehigiator, 2017). According to Effiong and Okon (2021), economic activities are broadly classified into four sectors: primary, secondary, tertiary, and quaternary. They are also categorized into formal and informal economies. The formal sector comprises legally recognized enterprises that comply with regulatory requirements and tax obligations, whereas the informal sector consists largely of unregistered and unregulated businesses characterized by lower productivity and limited social protection, particularly in developing economies (World Bank, 2020).

The primary sector involves the direct extraction and utilization of natural resources through agriculture, fishing, forestry, and mining, and remains a major source of livelihood in developing countries (Uddin & Hossain, 2022). The secondary sector focuses on transforming raw materials into finished products, thereby promoting industrialization and employment generation (Okafor & Musa, 2020). Economic development often drives a transition toward the tertiary sector, which encompasses service-based activities such as healthcare, education, transportation, finance, and retailing (Eze & Ezeani, 2021). The quaternary sector, centred on knowledge, research, education, and information technology, is increasingly recognized as a catalyst for innovation, productivity, and sustainable economic growth (Adigun & Ojo, 2023).

Cartelisation of Artisanship

Cartelisation of artisanship refers to the organized collaboration of skilled workers through unions or associations that influence market dynamics by regulating entry into the profession, fixing prices, controlling competition, and standardizing labour practices (Steen-Mizel, 2024; Lamiya & Siddharth, 2024). Although rooted in pre-industrial economic systems, artisan cartelisation has evolved into a contemporary socio-economic mechanism that enables artisans to protect their trades from the pressures of industrialization and globalization (Aderinto & Umeh, 2021). Through collective action, artisans operate as a unified body capable of coordinating service rates, controlling access to occupations, and shaping broader market outcomes. In many developing economies, artisan unions and cartels emerge as informal institutions that provide market stability, protect livelihoods, and reduce uncertainties associated with unregulated competition (Onuoha & Okoye, 2023).

Beyond their economic functions, these associations often strengthen social cohesion and provide mutual support during periods of hardship. Historically, cartels gained prominence during the late nineteenth and early twentieth centuries when firms coordinated production, pricing, and market access to maximize profits across key industries (Lamiya & Siddharth, 2024). However, concerns over their adverse effects on consumer welfare and market efficiency prompted the introduction of antitrust regulations, including the Sherman Antitrust Act in the United States and the Treaty of Rome in Europe (Lamiya & Siddharth, 2024). While some countries, such as the Netherlands, historically tolerated cartel arrangements (Petit et al., 2015), Nigeria currently regulates anti-competitive practices through the Federal Competition and Consumer Protection Act (FCCPA) 2018, which addresses cartel behaviours, including those within artisan groups (FCCPA, 2018).

Cartel Artisans Product Price Control and Economic Activities

Artisan cartels exert significant influence on economic activities within the informal sector through mechanisms such as price regulation, market-entry restrictions, and service standardisation (Kang, 2025). These associations are largely motivated by economic incentives, with participation decisions often shaped by anticipated financial returns (Levitt & Venkatesh, 2000). By organizing into unions that function similarly to cartels, artisans coordinate pricing structures and manage competition, thereby affecting consumer costs, employment opportunities, and innovation within local markets (Aderinto & Umeh, 2021). Price regulation is primarily intended to stabilize earnings and protect members from market volatility; however, coordinated pricing may elevate service costs and reduce consumer choice (Kang, 2025). When prices are fixed above market equilibrium, consumers may either bear higher costs or seek cheaper alternatives that may not meet established quality standards (Onuoha & Okoye, 2023).

In addition, artisan associations may impose barriers to entry through high membership fees, restricted access to clients, or other exclusionary practices, thereby limiting opportunities for new entrants and constraining job creation (Okojie & Adeola, 2021). While these measures may protect existing members, they can inhibit broader sectoral growth and underutilize available skills. At the macroeconomic level, persistent price-fixing within informal service markets may contribute to inflationary pressures and discourage investment, ultimately slowing economic diversification efforts (Lawal & Bassey, 2020). Although coordinated pricing can introduce stability and predictability into otherwise volatile informal markets (World Bank, 2020), resistance to reforms by established artisan groups may complicate efforts to integrate the sector into formal economic systems and regulatory frameworks (World Bank, 2020).

Cartel Artisans' Cohesion and Economic Activities

Cohesion among cartel artisans reflects a sense of unity, cooperation, and organised interaction that exists within informal trade associations. This solidarity significantly impacts local economic mechanisms by possibly encouraging market stability, regulating informal trade behaviours, and strengthening members' collective bargaining powers in the market. In some urban and semi-urban settings, skilled trade groups such as welders, masons, tailors, and mechanics form closely-knit alliances to pursue mutual economic interests and guard against external pressures in trade (Aderinto & Umeh, 2021). Kang (2025) again, posited that cohesion often results in a unified stance on pricing strategies, service quality maintenance, and customers engagement. This shared approach minimises unpredictability in the informal markets and supports artisans in delivering consistent services and products.

Hence, Okojie and Adeola (2021) stated that, artisans' group may combine resources for trainings, advocacy, and business support, which in turn boosts employment opportunities and facilitates

skill development through collaborative strategic efforts. Strong internal structures enable these groups to maintain discipline, manage internal disputes, and uphold collective rules which are essential factors in sustaining growth of their economic activities (Onuoha & Okoye, 2023). Nevertheless, when artisan's cohesion becomes excessively and unnecessarily rigid, it may hinder new entrants from participation and suppress competition.

Cartel Artisan Members' Welfare and Economic Activities

Members wellbeing influences productivity and long-term viability of the artisan cartels. These cartels function not only as economic entities but also as informal support networks in the market landscape. When such groups focus on enhancing member welfare through initiatives like financial aid, healthcare support, skills training, and conflict management, they empower artisans to participate more effectively and consistently in economic engagements (Okojie & Adeola, 2021). Providing welfare support helps artisans withstand the frequent economic instability of informal sectors. For instance, access to cooperative financing or short-term loans may support artisans in sustaining their businesses even during personal or economic setbacks, thereby sustaining their contributions to local economies (Aderinto & Umeh, 2021). Lawal and Bassey (2020) stated that when artisan organisations invest in training programmes and apprenticeship opportunities, they foster human capital growth and help curb unemployment. This has a ripple effect on the wider economy, mostly in areas where skilled labour is in high demand. Welfare provisions may also promote unity and strengthen the economic resilience of the artisan community (Onuoha & Okoye, 2023). The World Bank (2020) suggested that lack of support for members can result in low morale, and reduced productivity in goods and services. Artisan groups that overlook member welfare risk losing their relevance, which may threaten the informal sector's potential as a reliable source of livelihood, considering its importance.

Cartel Artisans' Accessibility to Regulatory Authorities and Economic Activities

The accessibility of artisan cartels to regulatory authorities plays a critical role in shaping the efficiency, formalisation, and sustainability of economic activities within the informal sector. Strong and functional relationships between artisan groups and regulatory institutions promote compliance with established standards, enhance accountability, and facilitate the integration of informal enterprises into the mainstream economy, thereby improving productivity, service quality, and employment generation (Okojie & Adeola, 2021). Access to regulatory agencies further enables artisans to benefit from government-supported initiatives such as vocational training, licensing programs, microfinance schemes, and health and safety regulations, all of which strengthen their competitiveness and reduce operational risks associated with non-compliance (Lawal & Bassey, 2020).

Nigeria's regulatory framework, particularly the Federal Competition and Consumer Protection Act (FCCPA), empowers the Federal Competition and Consumer Protection Commission (FCCPC) to investigate and sanction anti-competitive practices, including cartel activities among artisan groups. The Act prescribes penalties such as fines and imprisonment for offenders, reinforcing market fairness and regulatory compliance. Beyond enforcement, participatory governance mechanisms ensure that artisans contribute to policy decisions relating to taxation, urban planning, and resource allocation, thereby fostering inclusive economic development (Aderinto & Umeh, 2021).

Conversely, limited access to or distrust of regulatory institutions often perpetuates informality, weak oversight, and economic vulnerability (World Bank, 2020). Such conditions may restrict artisans' access to credit facilities, legal protection, and government support programs, reducing

their capacity to contribute effectively to employment creation and economic growth. Moreover, effective collaboration with regulatory authorities can minimize corruption and official harassment, thereby enhancing productivity, business confidence, and consumer trust within the informal sector (Onuoha & Okoye, 2023).

Government Funding of Artisans and Economic Activities

Government funding is a vital instrument for strengthening artisan productivity, employment generation, and sustainable economic development, particularly within developing economies where artisans constitute a significant segment of the informal sector. Through their contributions to job creation, skills development, and service delivery, artisans play an important role in local economic growth. Financial support in the form of grants, soft loans, and capacity-building initiatives enhances artisans' access to tools, training, and working capital, thereby improving their productive capacity and participation in economic activities (Lawal & Bassey, 2020). Such interventions also promote business formalisation, improve product and service quality, and increase market competitiveness. Targeted government funding has been identified as an effective mechanism for reducing poverty and unemployment, particularly among youth and women, through the promotion of micro-enterprise development (Aderinto & Umeh, 2021). Furthermore, access to finance enables artisans to expand operations, adopt modern technologies, and foster innovation, thereby contributing to industrial growth and increased gross domestic product (GDP) (Okojie & Adeola, 2021). Financial support also encourages regulatory compliance and business registration (Onuoha & Okoye, 2023). Nevertheless, the effectiveness of such programs depends on transparency, accountability, and inclusive implementation to prevent corruption, resource misallocation, and limited beneficiary reach (World Bank, 2020).

Theoretical review

The Big Push Theory

The Big Push Theory, introduced by Paul Rosenstein-Rodan in 1943, emphasises the importance of large-scale, coordinated investment efforts to stimulate economic development. The core idea is that a certain threshold of resources must be allocated to achieve broad-based growth, suggesting that government intervention through significant investment is essential for balanced economic activities and progress. The theory assumes that relying on a few sectors is risky; instead, development should span multiple industries to prevent economic instability in the event of sector-specific disruptions. Olusoji and Odeleye (2018) noted that sustained growth in economic activities requires extensive investment across diverse sectors especially those in the primary sector which include the artisans in the informal sector. The Big Push Theory advocates for simultaneous development in various areas, where each sector supports the others through mutual demand. This interdependence drives balanced and inclusive economic activities towards the growth of the economy.

Fisher-Clarke Development Theory

Fisher's model of economic growth stages, developed by Australian economist Allen Fisher in 1939 and later expanded by Colin Clark in 1940, is commonly known as the Fisher-Clark Development Theory or the Fisher-Clark Model. This theory outlines that economies evolve through three main stages of production: primary (extraction of raw materials), secondary (manufacturing), and tertiary (services). It posits that as national income increases, especially during the shift to the secondary sector, there is a growing demand for services, which leads to the expansion of the tertiary sector (Ola & Ifada, 2023). The model suggests that economic development naturally results in a dominant service sector, employing the largest portion of the

workforce. The rise of the service sector, according to the theory, is driven by two factors: the high-income elasticity of demand for services and relatively low labour productivity in this sector. However, a noted limitation of the model is that some countries may experience a sizable service sector even without a well-developed industrial base, as seen in many developing countries.

METHODOLOGY

Research design, study area and site

This study employed a survey research design focusing on a quantitative approach. The study covers the three (3) Senatorial Districts (Edo North, Edo Central, and Edo South) of Edo State, represented by Auchi, Uromi and Benin City respectively. These sites were purposively selected to ensure adequate geographical representation, and capture the diversity of artisanal practices, that permits generalisation of empirical findings. Each site hosts vibrant clusters of artisans whose collective activities underpin local economies and provide an ideal context for examining cartel dynamics across varied community settings. Due to the infinite target population size, the study applied the Cochran (1977) formula for minimum sample size determination. The result therefrom is approximately 384. However, to increase the power of generalisation, a sample size of 600 respondents was utilised in this survey representing 200 from each senatorial district.

Data collection and analysis

The research instrument used was a structured questionnaire (quantitative approach). The questionnaire examines artisan bio-data and questions relating to the objectives of the study which the respondents' provided answers. The questionnaire for administration was prepared with closed ended Likert scale form and accompanied with an introductory letter duly signed. Due to the nature of the respondents (artisans), hardcopy questionnaires were distributed using research assistants. Also, because of the possibility of having non-English speaking respondents, the services of a translator was required to help translate the questions to aid understandability. The questionnaire was tested for instrument validation and reliability using a pilot test. In addition, the questionnaires were given to three experts to review. The quantitative data collected was analysed using descriptive statistics and ordered logistics regression as the inferential statistic. The choice of ordered regression is based on the ordered nature of the variables (ranging from 1 to 5). The model that was estimated is presented in equation (1). All analyses were done using the SPSS software and Eviews software.

$$ECCA_i = \beta_0 + \beta_1 CAPPC + \beta_2 CAC + \beta_3 CAMW + \beta_4 CAARA + \beta_5 GFA + \varepsilon \ldots. (1)$$

Where: ECCA = economic activities; CAPPC = cartel artisans product price control; CAC = cartel artisans' cohesion; CAMW = cartel artisans members welfare; CAARA = cartel artisans' accessibility; GFA = government funding; β_0, β_1, β_2 … β_5 = coefficients. The a-priori expectation and in line with extant literature and theory is: $\beta_1 < 0$, $\beta_2 < 0$, $\beta_3 > 0$, $\beta_4 < 0$, $\beta_5 > 0$

That is, we expect economic activities to improve with increasing units of cater membership, welfare and government funding. However, economic activities should decline with increases in artisan price control, cohesion, and accessibility.

RESULT AND DISCUSSIONS

Table 1: Demographic features of respondents

	Options	Frequency	Percent
Gender	Male	242	40.3
	Female	325	54.2
	Prefer not to say	33	5.5
	Total	600	100

Age	18-25 Years	268	44.7
	26-35 Years	252	42
	36-45 Years	53	8.8
	46-55 Years	27	4.5
	Total	600	100
Occupation	Welding	97	16.2
	Mason	82	13.7
	Plumbing	79	13.2
	Electrician	32	5.3
	Carpentry	28	4.7
	Tiling	15	2.5
	Tailoring	62	10.3
	Mechanic	13	2.2
	Vulcanising	4	0.7
	Hair dressing/Barbing	110	18.3
	Others	78	13
	Total	600	100
District	Edo North	200	33.3
	Edo Central	200	33.3
	Edo South	200	33.3
	Total	600	100
Residence	1-5 Years	159	26.5
	6-10 Years	218	36.3
	11-15 Years	122	20.3
	Above 15 Years	101	16.8
	Total	600	100

Source: Extract from SPSS software

Table 1 shows that the artisan sample comprises largely of young people. The females constitute a slightly larger share of respondents (54.2%) than males (40.3%), and most respondents are aged 18–35 years (86.7%), indicating that the study largely captured active working-age artisans. Hair dressing/barbing is the single largest artisan occupation group (18.3%), followed by welding (16.2%) and masonry (13.7%). Geographically, the largest residential group has lived in their location for 6–10 years (36.3%). Summarily, from the result presented in Table 1, the demography of the sample suggests a relatively experienced but youthful artisan population spread across the three senatorial districts.

Table 2: Reliability Test

	Cronbach's Alpha	N of Items
Cartel artisans' product price control (CAPPC)	0.71	5
Cartel artisans' cohesion (CAC)	0.60	5
Cartel artisans' members welfare (CAMW)	0.70	5
Cartel artisans' accessibility (CAARA)	0.65	5
Government funding (GFA)	0.68	5
Economic activities (ECCA)	0.68	5

Source: Extract from SPSS software

Table 2 indicates the extent of measurement quality of the research instrument, though not uniformly strong. Using the common internal-consistency benchmark of .70 (Hussey et al., 2025),

the sacles for CAPPC (.71) and CAMW (.70) are acceptable, while CAARA (.65), GFA (.68), and ECCA (.68) are marginal but still defensible for exploratory social and management research. CAC (.60) is the weakest scale and is interpreted with caution following the suggestion by Nunnally and Bernstein (1994).

Table 3: One-Sample Kolmogorov-Smirnov Test for Normality

	ECCA	CAPPC	CAC	CAMW	CAARA	GFA
Test Statistic	0.323	0.295	0.294	0.289	0.253	0.340
Asymp. Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000

Source: Extract from SPSS software

Table 3 shows clear departures from normality. The Kolmogorov–Smirnov results are significant for all variables ($p < .001$), indicating that the distributions deviate from normality rather than merely showing random sampling fluctuation. According to Field (2018); Hosmer et al. (2013), a deviation from normality pattern supports the use of rank-based association measures and an ordinal response model rather than relying on strictly parametric assumptions. Consequently, in this study, we opted for the ordered regression technique.

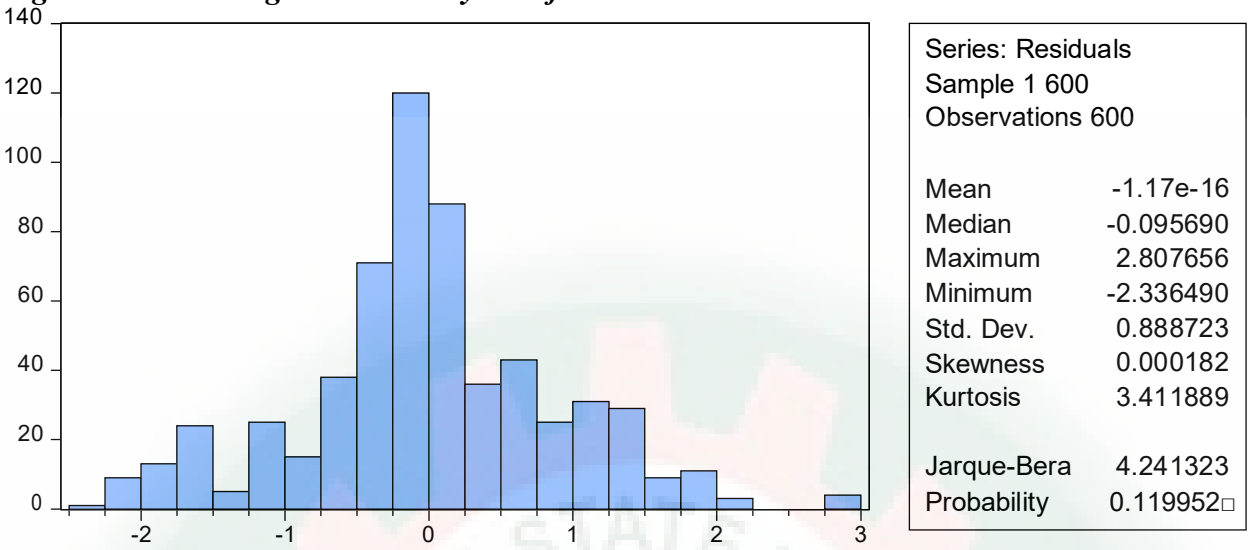
Table 4: Spearman's rho Correlation and VIFs

		ECCA	CAPPC	CAC	CAMW	CAARA	GFA
ECCA	Coefficient	1.000	.164**	-.115**	0.019	-.091*	.312**
	Sig. (2-tailed)	.	0.000	0.005	0.640	0.026	0.000
CAPPC	Coefficient	.164**	1.000	.172**	.083*	0.019	0.029
	Sig. (2-tailed)	0.000	.	0.000	0.041	0.637	0.476
CAC	Coefficient	-.115**	.172**	1.000	.332**	.162**	-0.033
	Sig. (2-tailed)	0.005	0.000	.	0.000	0.000	0.424
CAMW	Coefficient	0.019	.083*	.332**	1.000	.408**	.223**
	Sig. (2-tailed)	0.640	0.041	0.000	.	0.000	0.000
CAARA	Coefficient	-.091*	0.019	.162**	.408**	1.000	.248**
	Sig. (2-tailed)	0.026	0.637	0.000	0.000	.	0.000
GFA	Coefficient	.312**	0.029	-0.033	.223**	.248**	1.000
	Sig. (2-tailed)	0.000	0.476	0.424	0.000	0.000	.
VIF		N/A	1.0882	1.2539	1.6365	1.4089	1.1873

Source: Extract from SPSS software *** Significant at 1%, * Significant at 5%*

Table 4 suggests mostly weak associations, with no serious multicollinearity problem since none of the inter-correlations are above the .90 rule of thumb. Using common correlation-strength benchmarks such as Schober et al. (2018), coefficients around .10–.39 are weak and .40–.69 are moderate. Consequently, by this standard, most of the association observed in this study are weak. The strongest, which is CAMW–CAARA (.408), can be described as moderate. The association between CAC and CAMW (.332) is weak, and the links between ECCA and CAPPC (.164), CAC (-.115), CAARA (-.091), and GFA (.312) are also weak in magnitude, though statistically significant. The VIF values (1.09–1.64) are far below the usual caution thresholds of 5 or 10, thereby reinforcing that multicollinearity does not appear to threaten the model for this study.

Figure 1: Histogram Normality Test for Residuals



Source: SPSS software

The figure 1 depicts the distribution of the residual of the model. Specifically, the Jarque Bera statistics of 4.241 and associated p-value of 0.119 suggest that the residuals are normally distributed and reflect a random walk assumption.

Table 5: Other Diagnostic Tests

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.980	Prob. F(2,592)	0.139
Obs*R-squared	3.988	Prob. Chi-Square(2)	0.136
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	14.032	Prob. F(5,594)	0.000
Obs*R-squared	63.382	Prob. Chi-Square(5)	0.000
Scaled explained SS	67.101	Prob. Chi-Square(5)	0.000

Source: Extract from SPSS software

The diagnostic picture painted by the result in Table 5 is mixed. The Breusch–Godfrey test is not significant, consequently providing no evidence of serial correlation, but the Breusch–Pagan–Godfrey test is significant at $p < .001$, indicating heteroskedasticity. By implication, this means the disturbance variance is not constant, so inference should be interpreted cautiously. Furthermore, to ensure reliability, the use of robust standard errors or a heteroskedasticity-aware specification are appropriate options. In this study, we opted for the former using Huber white covariance method.

Table 6: Ordered Regression: ECCA as dependent

Method: ML - Ordered Probit (Newton-Raphson / Marquardt steps)				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
CAPPC	0.276	0.067	4.093	0.000
CAC	-0.265	0.077	-3.463	0.001
CAMW	0.158	0.073	2.150	0.032
CAARA	-0.315	0.073	-4.326	0.000
GFA	0.679	0.092	7.423	0.000

Pseudo R-squared	0.092	Akaike info criterion	1.963
LR statistic	117.067	Log likelihood	-579.997
Prob(LR statistic)	0.000	Restr. log likelihood	-638.531

Source: Extract from SPSS software

From Table 6, it is observed that substantively, the model examining the impact of cartelization on economic activities is jointly significant. The likelihood-ratio statistic is significant at $p < .001$, which means the predictors (cartel artisans product price control, cartel artisans cohesion, cartel artisans members welfare, cartel artisans' accessibility, and government funding), taken together, explain variation in economic commercial activity better than an intercept-only model. However, the pseudo-R^2 of .092 suggests modest explanatory power, which is common in cross-sectional survey-based ordinal models.

Specifically, CAPPC is positive and significant ($\beta = 0.276$, $p < .001$), leading to the rejection of the first null hypothesis. This indicates that higher cartel artisans' product price control is associated with a higher latent likelihood of being in a stronger economic activity category. In practical terms, the relationship is favourable to economic activity in the estimated model since that a one-unit rise in CAPPC increases the latent propensity for higher ECCA.

There is also evidence to reject the second null hypothesis as CAC is equally significant though negative ($\beta = -0.265$, $p < .001$)**.** This means stronger cartel artisans' cohesion is associated with a lower latent likelihood of higher economic commercial activity, holding other variables constant. The negative sign is important as it suggests that cohesion within the cartel may operate as a restrictive force rather than an expansive one in this context.

CAMW is positive and significant ($\beta = 0.158$, $p = .030$) thereby providing evidence to also reject the third null hypothesis. Thus, improved members' welfare is associated with a higher latent probability of better economic activity. The effect is statistically meaningful, though smaller than the effects of CAPPC and GFA. Concerning the fourth null hypothesis, CAARA is negative and significant ($\beta = -0.315$, $p < .001$), leading to its rejection. This suggests that greater accessibility of the cartel is associated with lower economic activity outcomes. The size of the coefficient is relatively large in absolute terms, so accessibility appears to be one of the more important predictors of the level of economic activity in the model.

Finally, GFA is positive and significant ($\beta = 0.679$, $p < .001$) in the model. It is also the strongest predictor of the level of economic activities as seen from the table 6. The implication of this is that access to government funding is the strongest upward push for economic activity. Concluding on the result presented in Table 6, the findings show that price control, members' welfare, and government funding exert positive and statistically significant effects on economic commercial activity, whereas cartel cohesion and accessibility exert negative and significant effects. In addition, government funding emerges as the strongest positive predictor, indicating that public support may be more effective than internal cartel organization in promoting economic activityin Edo State.

Discussions of Findings

Hypothesis 1: Cartel artisans' product price control and economic activities

The result indicates that cartel artisans' product price control has a positive and statistically significant effect on economic commercial activity ($\beta = 0.276$, $p < .001$). This suggests that, in Edo State, coordinated price setting may function as a stabilizing mechanism for artisan markets rather than purely as a distortionary force. The finding aligns with the literature that views price

regulation as a means of securing stable earnings, limiting volatility, and preserving market predictability in informal trade settings (Aderinto & Umeh, 2021; Kang, 2025). At the same time, the study also reflects the tension noted in the literature: while price coordination can protect insiders, it can also raise service costs, discourage entry, and constrain competition (Lawal & Bassey, 2020; Onuoha & Okoye, 2023). In addition, based on the Big Push Theory, the result implies that organized market coordination may support short-term sectoral stability, but only when it does not become exclusionary or inflationary (Olusoji & Odeleye, 2018; Rosenstein-Rodan, 1943).

Hypothesis 2: Cartel artisans' cohesion and economic activities

Cartel artisans' cohesion exerts a negative and significant effect on economic commercial activity ($\beta = -0.265$, $p < .001$). This means that stronger internal solidarity, as experienced in the sampled artisan groups, is associated with lower levels of economic activity. Although the literature recognizes cohesion as a source of discipline, collective bargaining, training, and business support, it also warns that overly rigid cohesion can suppress competition, block new entrants, and reduce broader sectoral dynamism (Aderinto & Umeh, 2021; Lawal & Bassey, 2020; Onuoha & Okoye, 2023). The present finding suggests that the restrictive side of cohesion may be dominant in Edo statet. In practical terms, cohesion may be helping existing members preserve control, but at the cost of wider market expansion and openness. This outcome is also consistent with the Fisher-Clark perspective, which expects economic progression to depend on increasingly open and adaptive service-sector structures rather than tightly closed trade enclaves (Ola & Ifada, 2023).

Hypothesis 3: Cartel artisan members' welfare and economic activities

The evidence shows a positive and significant effect of members' welfare on economic commercial activity ($\beta = 0.158$, $p = .030$). This is a clear indication that welfare support within artisan cartels strengthens economic performance. The finding is consistent with studies that link welfare provision to higher morale, greater resilience, improved productivity, and stronger human-capital formation through training, apprenticeships, financial assistance, and health-related support (Aderinto & Umeh, 2021; Lawal & Bassey, 2020; Okojie & Adeola, 2021). In a context where many artisans operate under income insecurity, welfare support appears to function as a practical buffer that keeps labor active and businesses functioning. Theoretically, this finding fits the Big Push argument that productive sectors grow faster when investment is not limited to infrastructure alone but extends to the people who produce value (Olusoji & Odeleye, 2018; Rosenstein-Rodan, 1943).

Hypothesis 4: Cartel artisans' accessibility to regulatory authorities and economic activities

Accessibility to regulatory authorities has a negative and significant effect on economic commercial activity ($\beta = -0.315$, $p < .001$). This is an important and somewhat counterintuitive result. The literature generally suggests that open relations with regulators should improve compliance, formalization, access to microfinance, and institutional support, thereby strengthening economic performance (Lawal & Bassey, 2020; Okojie & Adeola, 2021). The negative sign in this study suggests that, in practice, regulatory accessibility may be experienced less as support and more as surveillance, compliance pressure, or bureaucratic burden in Edo state. It is also possible that greater exposure to regulation is associated with more scrutiny of informal practices, which may temporarily constrain activity. This interpretation is consistent with the emphasis on FCCPA enforcement, penalties, and the risks faced by artisans who operate outside formal oversight (FCCPA, 2018; World Bank, 2020). The result therefore points to an obvious governance gap that access to regulators is not enough unless it is enabling, predictable, and supportive.

Hypothesis 5: Government funding and economic activities

Government funding has the strongest positive effect in the model ($\beta = 0.679$, $p < .001$), making it the most powerful predictor of economic commercial activity among all variables examined. This finding is highly consistent with the Big Push Theory, which argues that large-scale coordinated investment is necessary for broad-based growth, especially in undercapitalized sectors (Rosenstein-Rodan, 1943). It also aligns with the literature showing that grants, soft loans, tools, training, and capacity-building support improve productivity, formalization, innovation, and household income among artisans (Aderinto & Umeh, 2021; Okojie & Adeola, 2021). In this study, government funding appears to do more than relieve financial stress; it likely expands productive capacity and strengthens the artisan ecosystem.

CONCLUSION AND RECOMMENDTIONS

Conclusion

The study shows that cartelisation of artisanship has a mixed but important relationship with economic activities in Edo State. Price control, members' welfare, and government funding enhance economic activity, while cohesion and accessibility to regulators reduce it in the estimated model. The strongest positive driver is government funding, which suggests that the most effective route to strengthening artisan-led economic activity is targeted public support rather than reliance on internal cartel organization alone. Overall, the findings confirm that artisan cartels are not merely informal associations; they are economic institutions whose design and behaviour can either stimulate or constrain local development. The evidence also supports the Big Push Theory more strongly than a passive market adjustment view, because external investment and institutional support appear essential for meaningful growth.

Recommendations

Based on the findings of the study, the following are policy recommendations are made.

1. Government should prioritize targeted artisan funding schemes through transparent grants, soft loans, tool subsidies, and skills-development packages, because funding showed the strongest positive effect on economic activity.
2. Regulatory agencies should redesign their engagement with artisan groups to make compliance more facilitative than punitive. This means simplifying licensing, reducing harassment, and linking artisans to training, credit, and market-support services rather than only enforcement.
3. Artisan associations should preserve the benefits of cohesion and welfare without allowing them to become exclusionary. Internal rules should support mentorship, entry for younger artisans, and fairer competition, so that solidarity does not become a barrier to growth.
4. Price coordination should be monitored to prevent abusive pricing while retaining the stability that artisans need. A balanced framework is preferable such that there is enough coordination to protect livelihoods, but not so much that it suppresses competition and consumer welfare.

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